

On the dynamics of tangent-like mappings

mardi 10 juin 2025 09:00 (50 minutes)

In this talk we will introduce a transcendental version of the theory of polynomial-like mappings. The model family is a one parameter family T_α of “generalized tangent maps”, which are meromorphic functions with exactly two asymptotic values, only one of which is free. A straightening theorem will explain why we find copies of Julia sets of T_α in the dynamical plane of other maps with a free asymptotic value. Likewise, in parameter space, we find copies of the “Mandelshell”, the universal object whose boundary is the bifurcation locus of the family T_α .

The concept of “tangent-like mappings” was originally defined by Galazka and Kotus in 2008.

This is joint work (in progress) with Anna Miriam Benini and Matthieu Astorg.

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